



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

EPA Region 5 Records Ctr.



351285

REPLY TO ATTENTION OF:

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FACT SHEET

INCINERATION TESTS OF CONTAMINATED PLASTIC CHIPS

In spring 1983 the State of Illinois found about 8,000 tons of plastic chips coated with cyanide illegally stored in several locations in the Chicago metropolitan area as well as in Lee County. These chips were the waste product of a process to recover silver from used film. The chips in the Chicago area were found in deteriorating trailers, which have been temporarily secured by U.S. Environmental Protection Agency (U.S. EPA) to protect the public.

Several options are being considered for permanent disposal of the chips. Two options that appear to be most feasible are incineration and chemical treatment.

The State of Illinois asked the U.S. EPA to assist in examining disposal options. As a result, U.S. EPA is participating in tests to study the feasibility of both incineration and chemical treatment.

The test for chemical treatment is being conducted in Tennessee. The proposed incineration test will be conducted by the C-E Raymond Company in Naperville. The test procedure has been reviewed and approved by local, State and Federal environmental and health officials.

What is the incineration test?

The purpose of the test is to determine if all the cyanide will be thermally destroyed, or whether some of it will remain in the ash or be captured in the air pollution control equipment. In this test the C-E Raymond Company will put both contaminated and uncontaminated chips into an incinerator for destruction. The cyanide molecules will be broken down and become water and other gases, such as carbon dioxide and nitrogen, which normally occur in the atmosphere. Any molecules that are not destroyed will be captured in the air pollution control equipment.

How much contaminated material will be used?

A maximum of 2,000 pounds of the chips will be used in the tests, which contain a total of 1 pound of cyanide. The chips will be reanalyzed as they are used so the concentration of cyanide will be confirmed.

Will there be any health effects?

No. The test has been carefully designed to preclude any adverse health impacts on workers at the site as well as in the neighboring community. Scientists do not anticipate any cyanide being emitted from the incinerator stack. However, monitors will be used to measure the stack gases. Should a level of 10 parts per million of cyanide be reached in these gases the experiment will be halted immediately. The 10 parts per million standard is the existing OSHA standard for worker safety. Workers can be exposed to an average of 10 parts per million for 8 hours each day. The standard has been in use for over 20 years and no incidents of adverse health effects have been reported. Should the test be halted, there is only enough material in the incinerator to burn for less than five minutes.

Will all the remaining chips be incinerated in Naperville?

No. The trial burn is a one time test of limited duration. The C-E Raymond facility could not be used to dispose of all of the chips because the incinerator is not large enough.

Will Naperville suffer any long term effects?

No. These tests will be conducted in a controlled situation. All materials transported to the incinerator and incineration by-products will be removed when tests are completed.

Will there be exposure to dioxin?

No. The chips do not contain dioxin nor do they contain any chemicals which can create dioxin upon incineration.

Requests for additional information concerning this issue should be addressed to:

Vanessa R. Musgrave
U.S. Environmental Protection Agency
230 S. Dearborn Street